Mid-Pacific Region Public Affairs
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RECLAMATION
Managing Water in the West

Coupling Bolt from Folsom Powerplant – Photo Credit: Winetta Owens

As shown above, the coupling bolt from the Folsom Powerplant is one of six bolts used to fasten the turbine wheel (runner) to the turbine shaft. The calculated weight of the bolt is 103 pounds. The turbine wheel weighs 49,400 pounds and can produce up to 74,000 horsepower.

The construction of the Folsom Powerplant began in 1948 and was completed in 1955. Reclamation built and operates the powerplant at the foot of Folsom Dam on the north side of the American River. Water from the dam is released through three penstocks, which are 560 feet in length and 15 feet in diameter, to three generating units, each rated at just over 76,000 kilowatts and with a combined rating of 198,720 kilowatts. Water is supplied to the three 74,000 horsepower turbines that drive the generators through the three penstocks, which run through the right abutment of the main dam.

Folsom Dam is a concrete gravity dam 340 feet high and 1,400 feet long and flanked by two earthfill wing dams. The combined length of the Folsom facility's main dam, wing dams, Mormon Island Auxiliary Dam and eight dikes is 26,730 feet with a total volume of materials of 13,970,000 cubic yards, including 1,050,000 cubic yards of concrete in the main dam alone. Folsom Dam regulates flows in the American River for irrigation, power, flood control, municipal and industrial use, fish and wildlife, recreation and other purposes.

Under the Joint Federal Project, a new auxiliary spillway is being constructed southwest of the existing main concrete dam. It is the key feature to improving Folsom Dam's flood control ability.

For more information, please visit:
http://www.usbr.gov/projects/Facility.jsp?fac_Name=Folsom+Dam
http://www.usbr.gov/projects/Powerplant.jsp?fac_Name=Folsom+Powerplant
http://www.usbr.gov/mp/ccao/